

FIG. 1

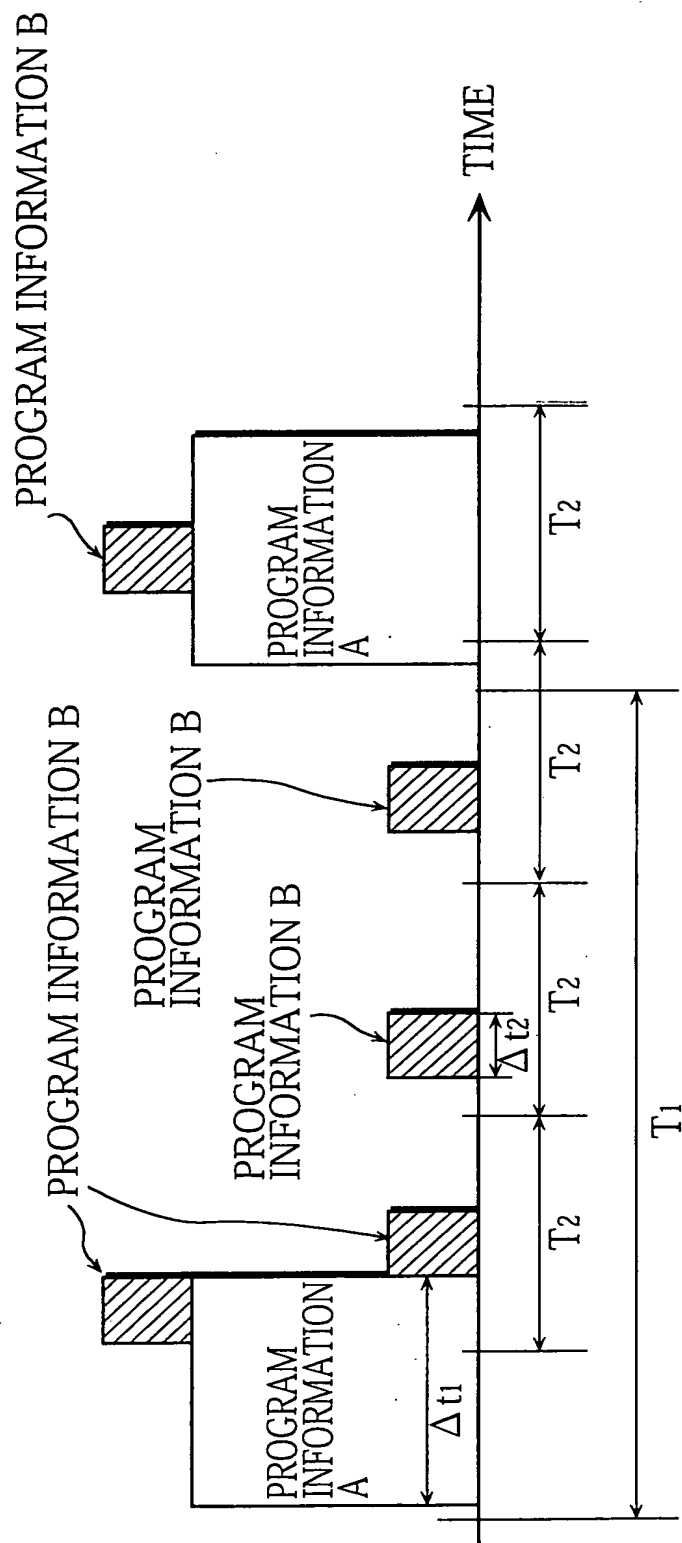


FIG. 2

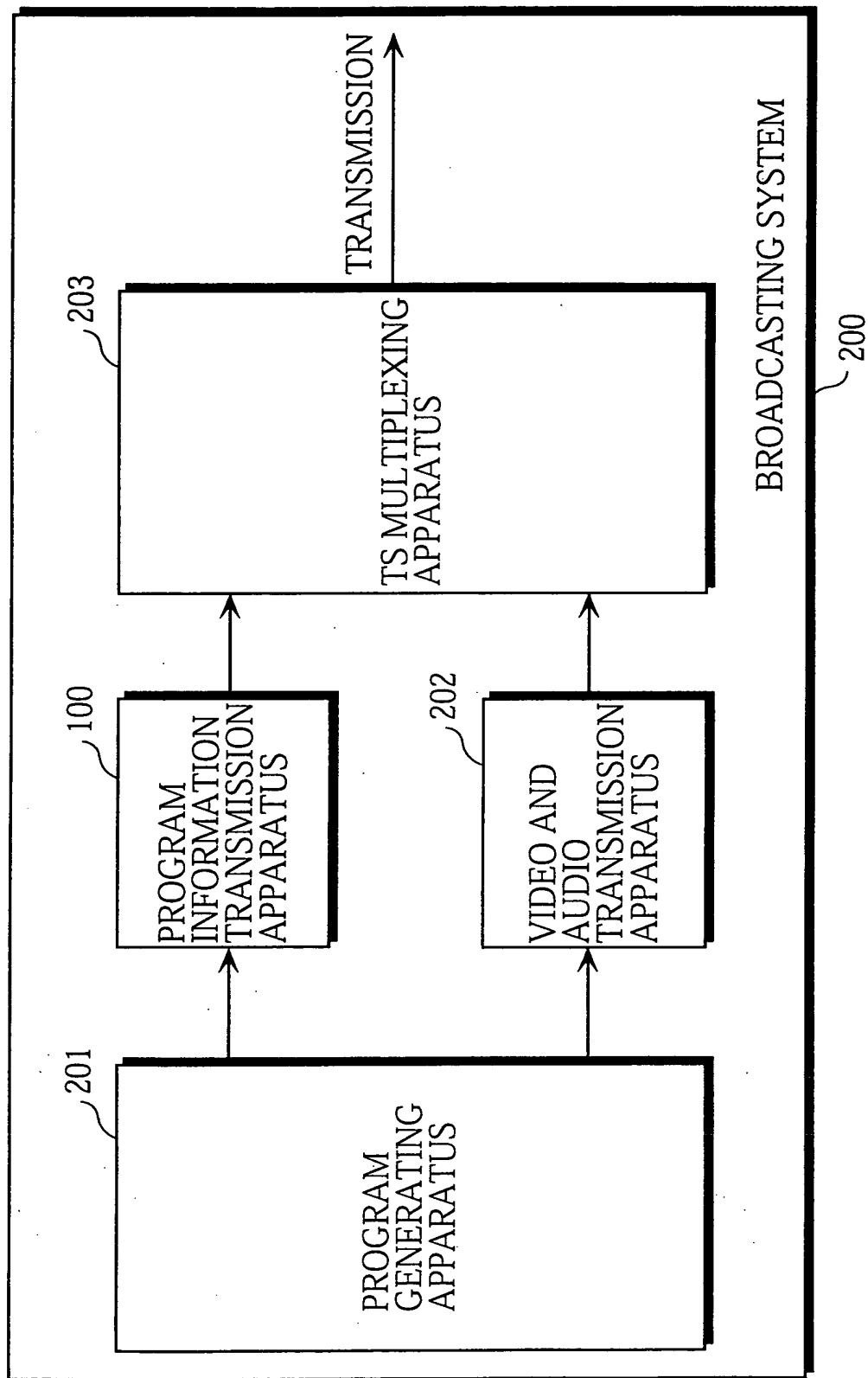


FIG. 3

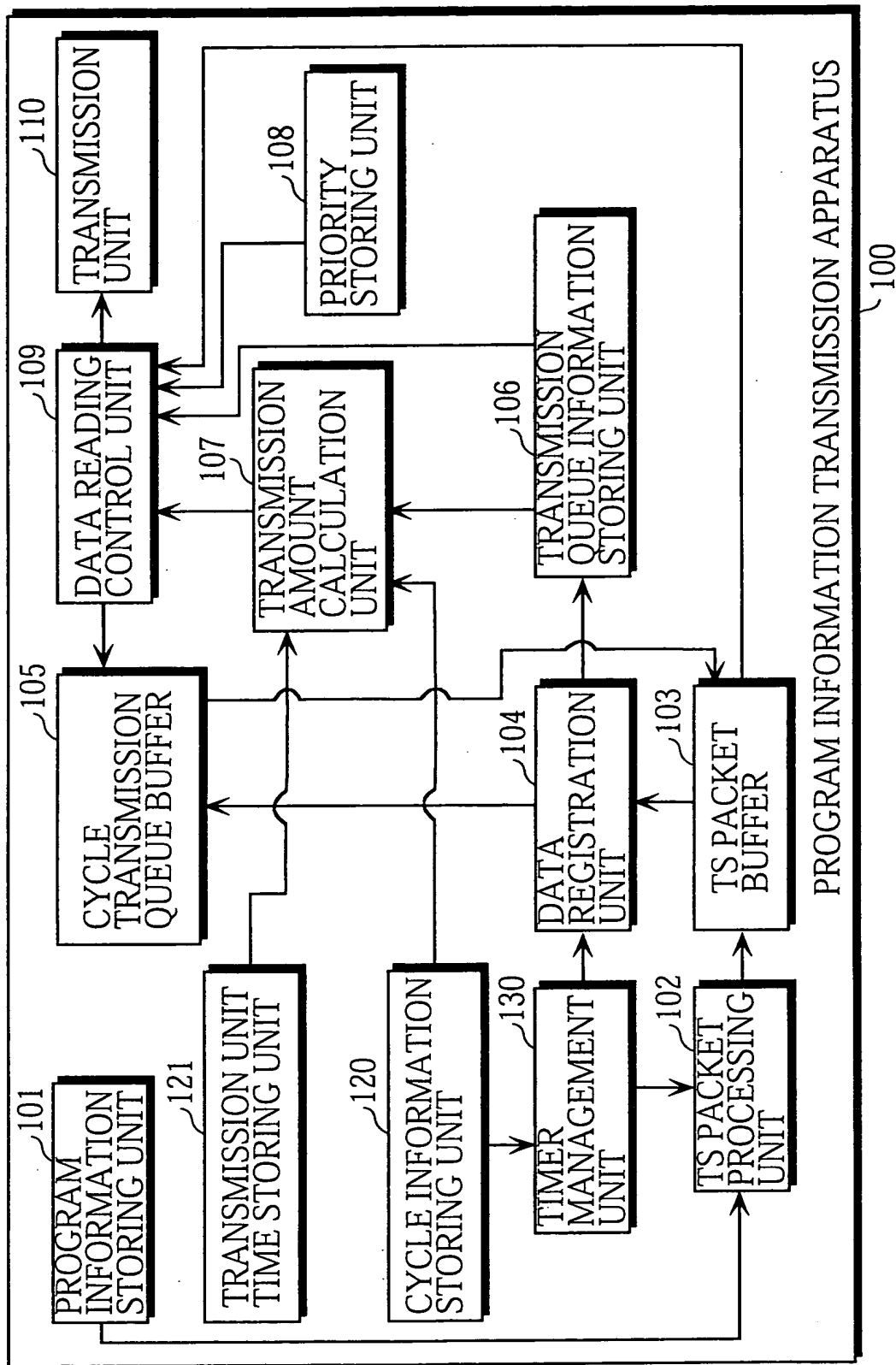


FIG. 4A

PROGRAM INFORMATION A

START TIME	BROADCAST LENGTH	SIZE	PROGRAM DESCRIPTION
1999/10/14 11:00	00:30	200byte	MORNING NEWS
1999/10/14 11:30	00:45	100byte	AFTERNOON NEWS
1999/10/14 12:15	01:00	450byte	AFTERNOON TV DRAMA
⋮			
1999/10/16 23:00	00:50	200byte	MIDNIGHT NEWS

FIG. 4B

PROGRAM INFORMATION B

START TIME	BROADCAST LENGTH	SIZE	PROGRAM DESCRIPTION
1999/10/14 11:00	00:30	250byte	TV DRAMA
1999/10/14 11:30	00:45	200byte	VARIETY SHOW
1999/10/14 12:15	01:00	500byte	WORLD NEWS
⋮			
1999/10/16 23:00	00:50	300byte	PROFESSIONAL BASEBALL NEWS

FIG. 4C

PROGRAM INFORMATION C

START TIME	BROADCAST LENGTH	SIZE	PROGRAM DESCRIPTION
1999/10/14 11:00	00:30	200byte	MORNING NEWS
1999/10/14 11:30	00:45	100byte	AFTERNOON NEWS
1999/10/14 12:15	01:00	450byte	AFTERNOON TV DRAMA
⋮			
1994/11/13 23:00	00:50	190byte	MIDNIGHT NEWS

FIG. 5

TYPE OF PROGRAM INFORMATION	CYCLE LENGTH
PROGRAM INFORMATION A(TableA)	3 SECONDS
PROGRAM INFORMATION B(TableB)	10 SECONDS
PROGRAM INFORMATION C(TableC)	10 SECONDS

09748479 422700

FIG. 6

FIG. 6

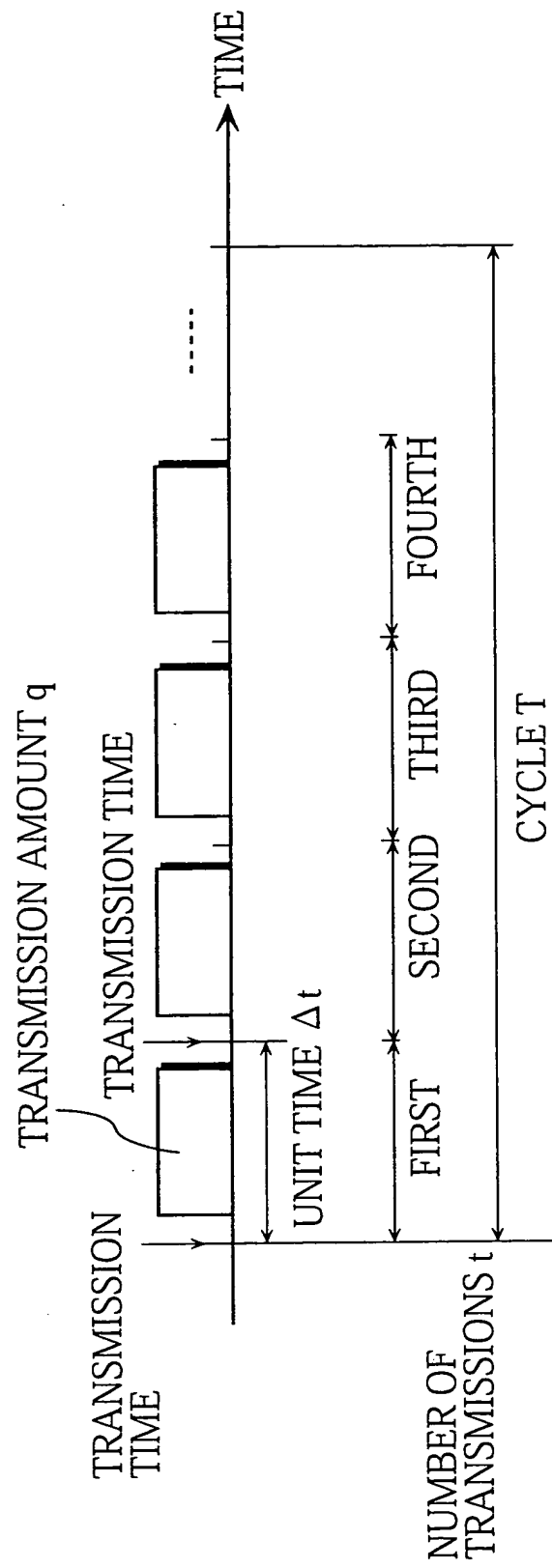


FIG. 7A

CYCLE=THREE SECONDS			
A1[1]	A1[2]	A1[3]	A1[4]
A2[1]	A2[2]	A2[3]	A2[4]
A3[1]	A3[2]	A3[3]	A3[4]

FIG. 7B

CYCLE=TEN SECONDS									
B1[1]	B1[2]	B1[3]	B1[4]						
B2[1]	B2[2]	B2[3]	B2[4]						
.	.	.	.						
.	.	.	.						
B100[1]	B100[2]	B100[3]	B100[4]						
C1[1]	C1[2]	.	C1[21]	C1[22]	.	C1[39]	C1[40]	C1[61]	C1[62] . C1[69]
C2[1]	C2[2]	.	C2[20]	C2[21]	.	C2[37]	C2[38]	C2[59]	
C3[1]	C3[2]	.	C3[19]	C3[20]	.	C3[39]	C3[40]	C3[61]	C3[70] . C3[76]

FIG. 8

CYCLE TRANSMISSION QUEUE BUFFER 105

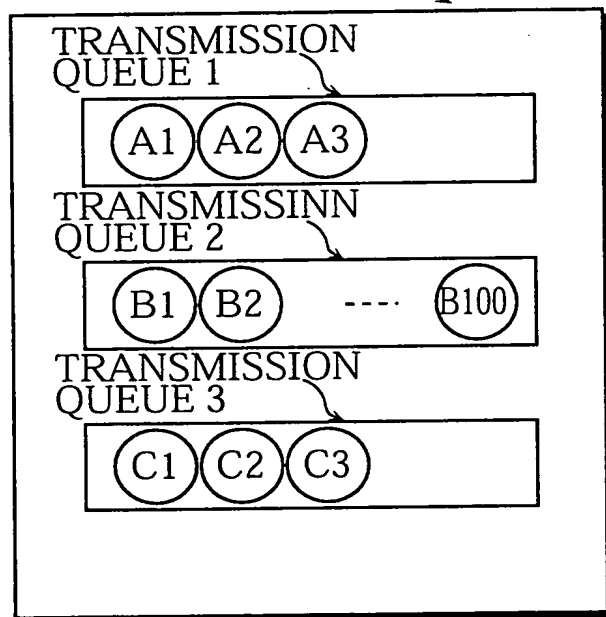


FIG. 9

TRANSMISSION QUEUE 1 TableA				
SubTable	Section1			
A1	4			
A2	4			
A3	4			
TRANSMISSION QUEUE 2 TableB				
SubTable	Section1			
B1	4			
B2	4			
.	.			
.	.			
B100	4			
TRANSMISSION QUEUE 3 TableC				
SubTable	Section1	Section2	Section3	Section4
C1	21	18	22	8
C2	20	17	22	
C3	19	20	22	15

FIG. 10

Table	PRIORITY
TableA	1
TableB	2
TableC	3

FIG. 11

Table	CYCLE	UNIT TIME PERIOD	NUMBER OF TRANSMISSION PERIODS	NUMBER OF PACKETS	NUMBER OF PACKETS PER UNIT TIME PERIOD	EMi	EL
TableA	THREE SECONDS	100ms	30 \square	12	0.4	1	
TableB	TEN SECONDS	100ms	100 \square	400	4	5	9
TableC	TEN SECONDS	100ms	100 \square	204	2.04	3	

FIG. 12

CRITERION A-1	The number of packets that are transmitted per unit time period does not exceed the standard total transmission amount EL.
CRITERION B-1	The continuity of packets of a section is not interrupted by packets of another section during transmission
CRITERION B-2	Packets of tables given higher priorities are transmitted first .
CRITERION B-3	When the amount of transmitted packets of a current table reaches a corresponding standard table transmission amount Emi, the current table is switched to the next table.

FIG. 13

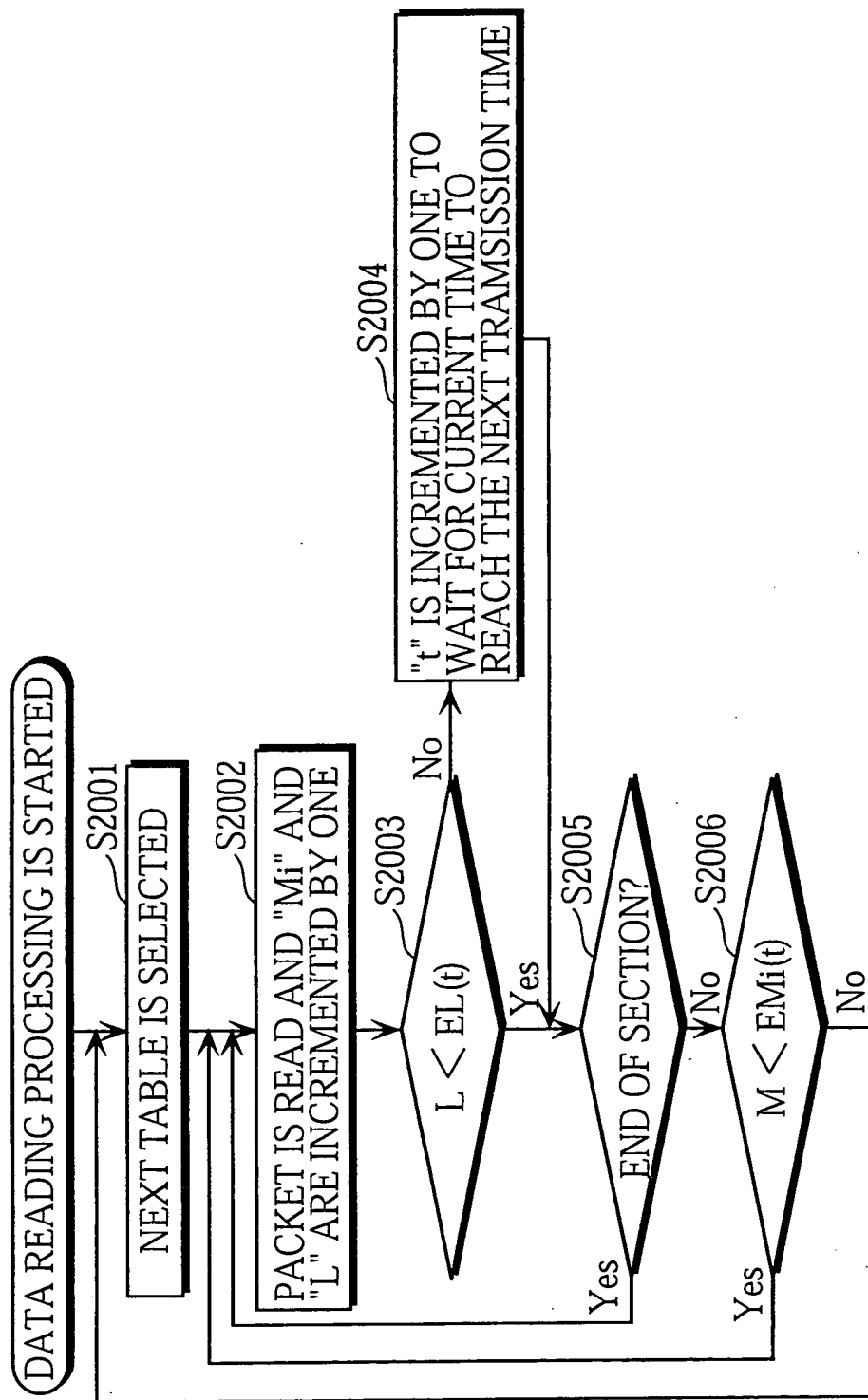


FIG. 14A

NUMBER OF TRANSMISSIONS t	no.1	no.2	no.3	no.4	no.5	no.6	no.7	no.8	no.9
1	A1	A1	A1	A1	B1	B1	B1	B1	B2
2	B2	B2	B2	B3	B3	B3	B3	C1	C1
3	C1	C1	C1	C1	C1	C1	C1	C1	C1
4	C1	C1	C1	C1	C1	C1	C1	C1	C1
5	C1	A2	A2	A2	A2	B4	B4	B4	B4
6	B5	B5	B5	B5	B6	B6	B6	B6	B7
7	B7	B7	B7	B8	B8	B8	B8	B9	B9
8	B9	B9	B10	B10	B10	B10	C2	C2	C2

FIG. 14B

	TableA		TableB		TableC		
NUMBER OF TRANSMISSIONS t	EM1(t)	M1	EM2(t)	M2	EM3(t)	M3	EL(t)
1	1	4	5	5	3	0	9
2	2	4	10	12	6	2	18
3	3	4	15	12	9	11	27
4	4	4	20	12	12	20	36
5	5	8	25	16	15	21	45
6	6	8	30	25	18	21	54
7	7	8	35	34	21	21	63
8	8	8	40	40	24	24	72

Table	CYCLE	UNIT TIME PERIOD	NUMBER OF TRANSMISSION PERIODS	NUMBER OF PACKETS PER UNIT TIME PERIOD	ESi(t)	EMi(t)	ELt(t)
TableA	THREE SECONDS	100ms	12	0.4	$0.5 \times t$	$INT(ES1(t) + 0.9)$	ME1(t)
TableB	TEN SECONDS	100ms	400	4	$4.1 \times t$	$INT(ES2(t) + 0.9)$	+EM2(t)
TableC	TEN SECONDS	100ms	204	2.04	$2.1 \times t$	$INT(ES3(t) + 0.9)$	+EM3(t)

FIG. 15

FIG. 16A

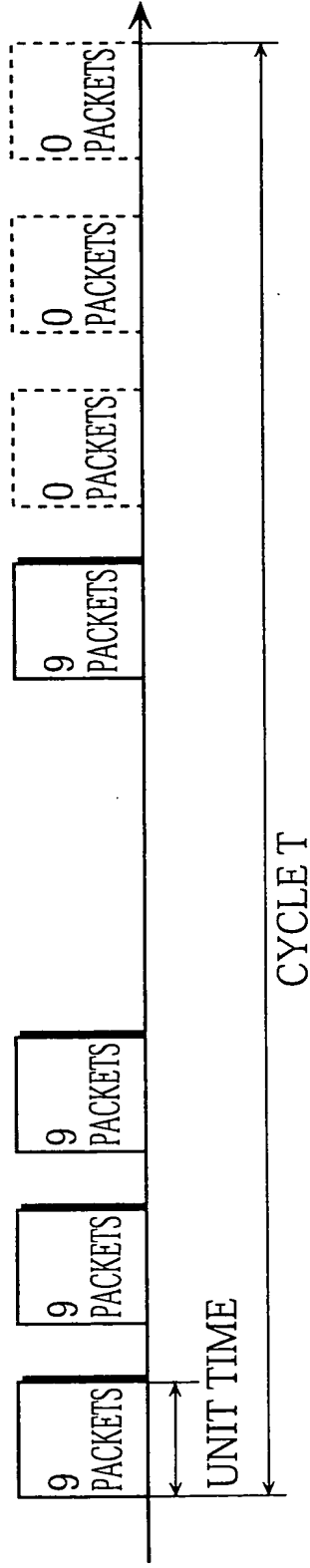


FIG. 16B

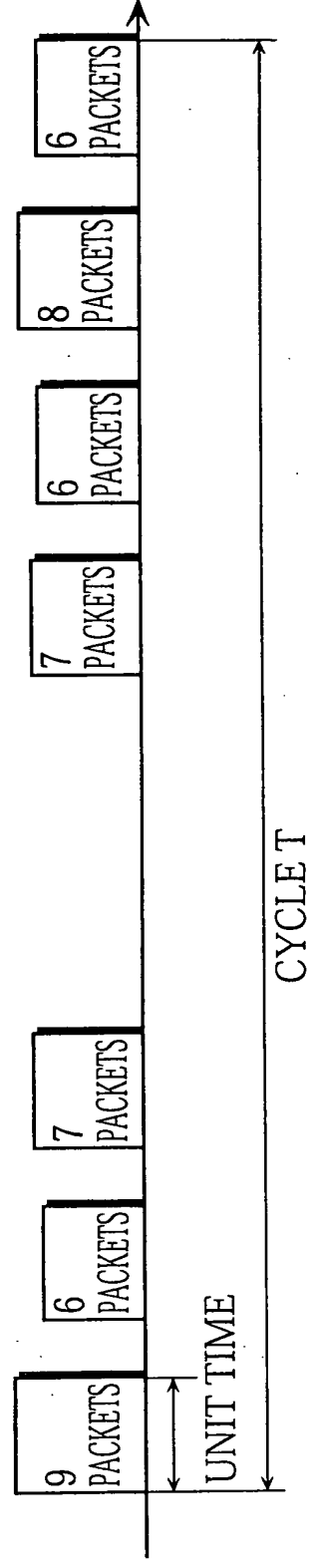


FIG. 18

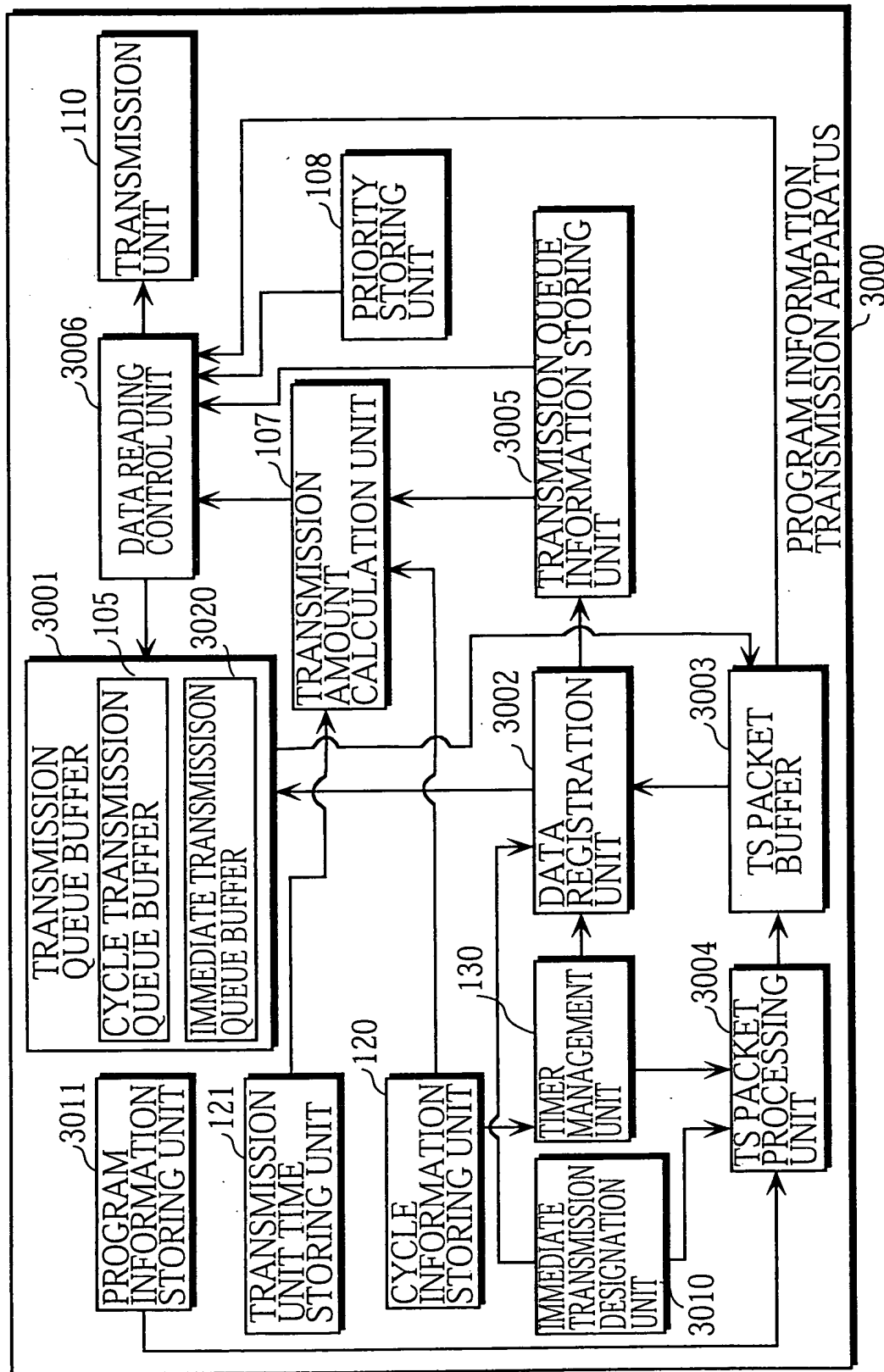


FIG. 19A

CYCLE=THREE SECONDS			
A1[1]	A1[2]	A1[3]	A1[4]
A2[1]	A2[2]	A2[3]	A2[4]
A3[1]	A3[2]	A3[3]	A3[4]

FIG. 19B

CYCLE==TEN SECONDS												
B1[1]	B1[2]	B1[3]	B1[4]									
B2[1]	B2[2]	B2[3]	B2[4]									
.	.	.	.									
.	.	.	.									
B100[1] B100[2] B100[3] B100[4]												
C1[1]	C1[2]	.	C1[21]	C1[22]	.	C1[39]	C1[40]	.	C1[61]	C1[62]	.	C1[69]
C2[1]	C2[2]	.	C2[20]	C2[21]	.	C2[37]	C2[38]	.	C2[59]			
C3[1]	C3[2]	.	C3[19]	C3[20]	.	C3[39]	C3[40]	.	C3[61]	C3[70]	.	C3[76]

FIG. 19C

IMMEDIATE			
D1[1]	D1[2]	D1[3]	D1[4]
D2[1]	D2[2]	D2[3]	D2[4]
D3[1]	D3[2]	D3[3]	D3[4]

FIG. 20

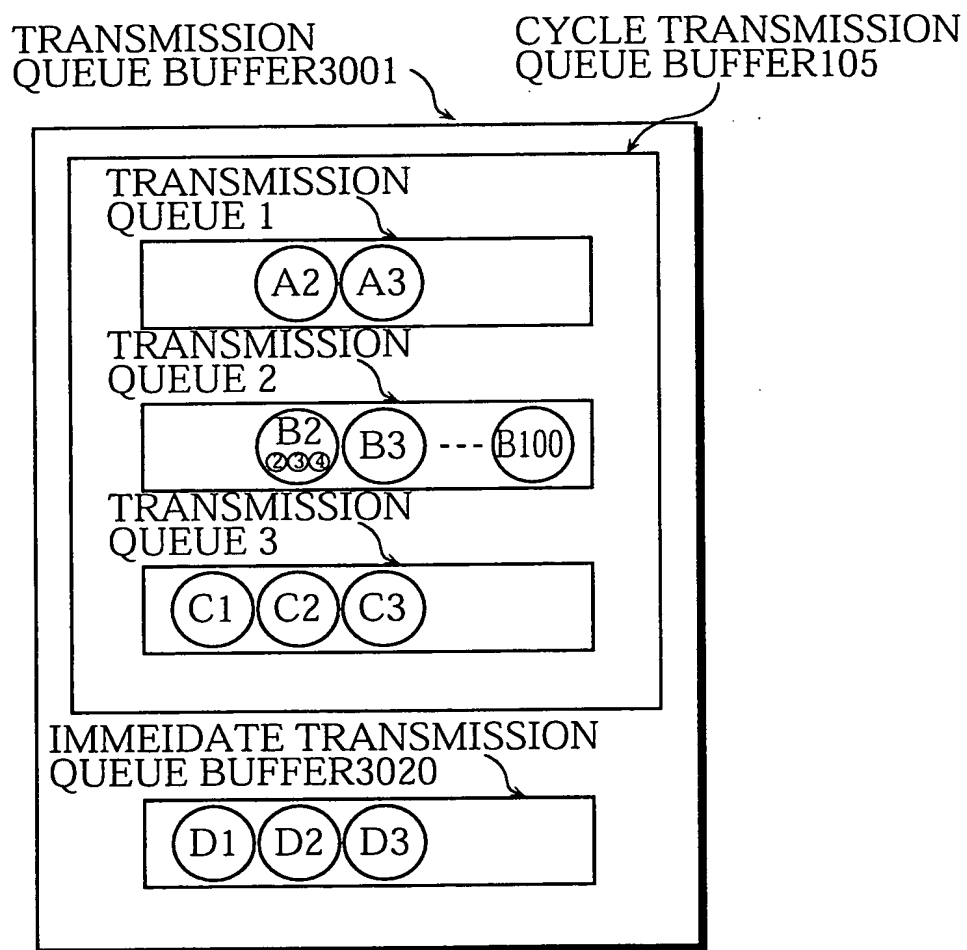


FIG. 21

TRANSMISSION QUEUE 1 TableA					
SubTable		Section1			
A1		4			
A2		4			
A3		4			
TRANSMISSION QUEUE 2 TableB					
SubTable		Section1			
B1		4			
B2		4			
.		.			
.		.			
B100		4			
TRANSMISSION QUEUE 3 TableC					
SubTable		Section1	Section2	Section3	Section4
C1		21	18	22	8
C2		20	17	22	
C3		19	20	22	15
IMMEDIATE TRANSMISSION QUEUE BUFFER TableD					
SubTable		Section1			
D1		4			
D2		4			
D3		4			

FIG. 22

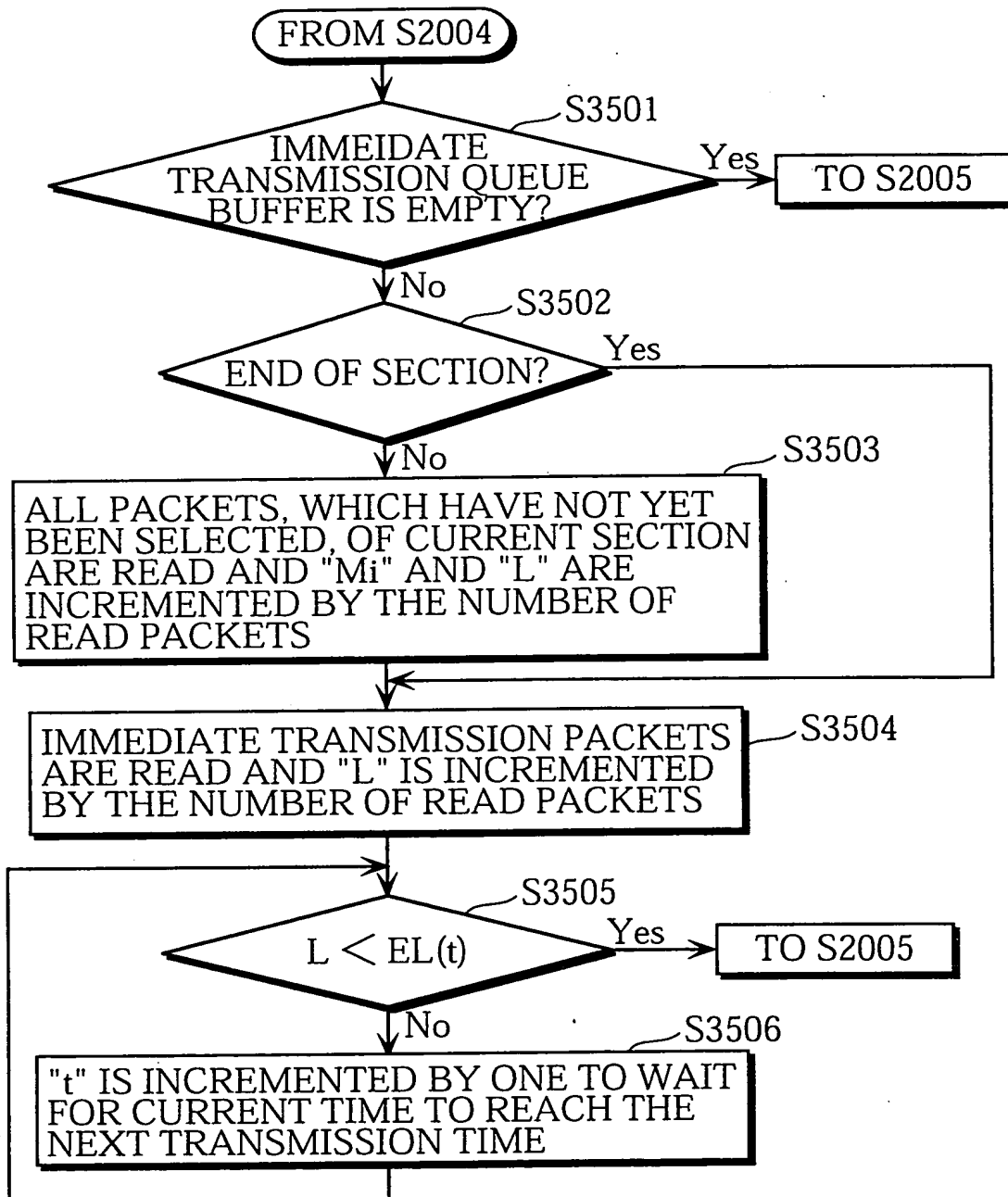


FIG. 23A

NUMBER OF TRANSMISSIONS t	no.1	no.2	no.3	no.4	no.5	no.6	no.7	no.8	no.9	no.10	no.11	no.12	no.13	no.14	no.15
1	A1	A1	A1	A1	B1	B1	B1	B1	B2						
2	B2	B2	B2	D1	D1	D	D1	D1	D2	D2	D2	D3	D3	D3	D3
3							B3	B3	B3						
4															

FIG. 23B

	TableA		TableB		TableC		TableD	
NUMBER OF TRANSMISSIONS t	EM1(t)	M1	EM2(t)	M2	EM3(t)	M3	M4	L
1	1	4	5	5	3	0	0	9
2	2	4	10	8	6	0	12	24
3	3	4	15	11	9	0	12	27
4								